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## कील, चौकोर, रेडियस — विशिष्टि

( पहला पुनरीक्षण )

## Nail, Square, Radius — Specification

( First Revision )

ICS 11.040.40

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## FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Orthopaedic Instruments, Implants and Accessories Sectional Committee had been approved by the Medical Equipment and Hospital Planning Division Council.

This standard was originally published in 1983. The first revision of this standard has been brought out to align it with the recent developments and to bring the standard in line with the latest style and format of Indian Standards.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2: 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be same as that of the specified value in this standard.

*Indian Standard*

# NAIL, SQUARE, RADIUS — SPECIFICATION

( *First Revision* )

## 1 SCOPE

This standard prescribes dimensional and other requirements of square nails used for implantation of radius bone in orthopaedic surgery.

## 2 REFERENCES

The standards given below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards.

<i>IS No.</i>	<i>Title</i>
IS/ISO 5832 (Part 1) : 2016	Implants for surgery — Metallic materials: Part 1 Wrought stainless steel
IS 7531 : 1990	Surgical instruments — Corrosion resistance of stainless-steel surgical instruments — Methods of tests ( <i>first revision</i> )

## 3 MATERIAL

The composition of stainless steel shall be as per Table 1 given in 4.2 of IS/ISO 5832 (Part 1).

## 4 SHAPE AND DIMENSIONS

**4.1** The dimensions shall be as shown in Fig. 1.

**4.2** The diameter of square nails may be calculated by multiplying by  $\sqrt{2}$  when required for the purpose of indentation.

## 5 WORKMANSHIP AND FINISH

**5.1** One end of the nail shall be as shown in Fig. 1 and the other end threaded.

**5.2** The thread shall be neat and clean.

**5.3** The nail shall be free from cracks, draw marks, burrs, pits, surface contamination and foreign particles.

**5.4** The nail shall be electro-polished and passivated.

## 6 CORROSION RESISTANCE TEST

The product shall satisfy the requirements when tested in accordance with IS 7531.

## 7 MARKING

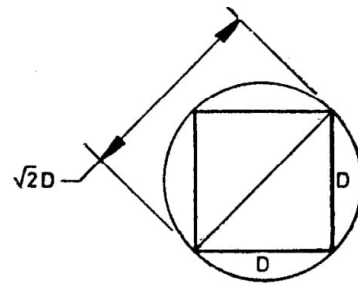
**7.1** Each component shall be marked with manufacturer's name, initials or registered trade-mark.

### 7.2 BIS Certification Marking

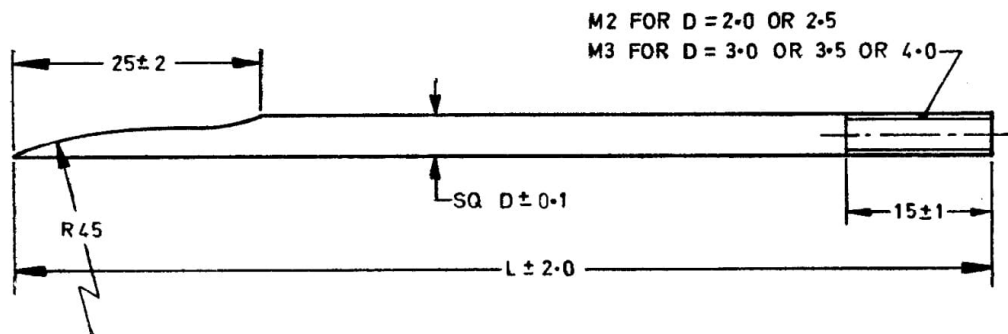
The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed there under, and the product(s) may be marked with the Standard Mark.

## 8 PACKING

The tip of each nail may be covered with strippable plastic coating. The nail may then be packed individually in polyethylene bags. A number of such pieces may be packed in cartons as agreed to between the purchaser and the supplier.



# CALCULATION FOR DIAMETER OF SQUARE NAIL



$D = 2.0$  to  $4.0$  in steps of  $0.5$ .  
 $L = 150$  to  $275$  in steps of  $25$ .  
 All dimensions in millimetres.

FIG. 1 NAIL, SQUARE, RADIUS



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Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the website- [www.bis.gov.in](http://www.bis.gov.in) or [www.standardsbis.in](http://www.standardsbis.in).

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### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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